

IN THE CLAIMS

Claims 1-9 (Canceled)

10. (Currently Amended) A high frequency power amplifier module comprising:

an input terminal;

an output terminal;

a control terminal;

a mode switching terminal;

a semiconductor amplification element including a first gate and a second gate between a drain and a source, said first gate being closer to said drain for receiving the signal from said control terminal, and said second gate being closer to said source for receiving the signal from said input terminal;

a circuit for ~~feeing~~ feeding said output terminal with a signal according to the signal outputted from the drain of said semiconductor amplification element;

a bias circuit connected with said control terminal for feeding the second gate of said semiconductor amplification element with a bias according to a control voltage fed to said control terminal; and

a mode switching circuit activated in response to the signal from said mode switching terminal to feed an output

signal to the second gate of said semiconductor amplification element.

11. (Original) A high frequency power amplifier module according to Claim 10,

wherein said circuit disposed between said semiconductor amplification element and said output circuit includes one or more cascade-connected second semiconductor amplification elements, and

wherein said second semiconductor amplification element includes: a control terminal connected with the output terminal of the upstream stage semiconductor amplification element; and a first terminal connected with either said output terminal or the downstream stage semiconductor amplification element.

12. (Original) A high frequency power amplifier module according to Claim 11, further comprising:

an AGC circuit for feeding its output to the first gate of said semiconductor amplification element.

13. (Original) A high frequency power amplifier module according to Claim 10,

wherein said high frequency power amplifier module is an amplifier system for the GSM, when the output signal of

said mode switching circuit exhibits a first state, and an amplifier system for the EDGE when the output signal of said mode switching circuit exhibits a second state.

14. (Currently Amended) A high frequency power amplifier module comprising:

- an input terminal;
- an output terminal;
- a control terminal;
- a mode switching terminal;

- a semiconductor amplification element including a first gate and a second gate between a drain and a source, said first gate being closer to said drain for receiving the signal from said control terminal, and said second gate being closer to said source for receiving the signal from said input terminal;

- a circuit for ~~feeding~~ feeding said output terminal with a signal according to the signal outputted from the drain of said semiconductor amplification element;

- a bias circuit connected with said control terminal for feeding the first gate and the second gate of said semiconductor amplification element with a bias according to a control voltage fed to said control terminal; and

- a mode switching circuit activated in response to the signal from said mode switching terminal to feed an output

signal to the second gate of said semiconductor amplification element.

15. (Original) A high frequency power amplifier module according to Claim 14,

wherein said high frequency power amplifier module is an amplifier system for the GSM, when the output signal of said mode switching circuit exhibits a first state, and an amplifier system for the EDGE when the output signal of said mode switching circuit exhibits a second state.

Claims 16-24 (Canceled)

25. (Currently Amended) A wireless communication system comprising a high frequency power amplifier module at the output stage on a transmission side,

wherein said high frequency power amplifier module includes:

an input terminal;

an output terminal;

a control terminal;

a mode switching terminal;

a semiconductor amplification element including a first gate and a second gate between a drain and a source, said first gate being closer to said drain for receiving the

signal from said control terminal, and said second gate being closer to said source for receiving the signal from said input terminal;

a circuit for ~~feeding~~ feeding said output terminal with a signal according to the signal outputted from the drain of said semiconductor amplification element;

a bias circuit connected with said control terminal for feeding the second gate of said semiconductor amplification element with a bias according to a control voltage fed to said control terminal; and

a mode switching circuit activated in response to the signal from said mode switching terminal to feed an output signal to the second gate of said semiconductor amplification element.

26. (Original) A wireless communication system according to Claim 25,

wherein said circuit disposed between said semiconductor amplification element and said output circuit includes one or more cascade-connected second semiconductor amplification elements, and

wherein said second semiconductor amplification element includes: a control terminal connected with the output terminal of the upstream stage semiconductor amplification element; and a first terminal connected with either said

output terminal or the downstream stage semiconductor amplification element.

27. (Original) A wireless communication system according to Claim 26, further comprising:

an AGC circuit for feeding its output to the first gate of said semiconductor amplification element.

28. (Original) A wireless communication system according to Claim 25,

wherein said high frequency power amplifier module acts as an amplification module for the GSM, when the output signal of said mode switching circuit exhibits a first state, and an amplification module for the EDGE when the output signal of said mode switching circuit exhibits a second state.

29. (Currently Amended) A wireless communication system comprising a high frequency power amplifier module at the output stage on a transmission side,

wherein said high frequency power amplifier module includes:

- an input terminal;
- an output terminal;
- a control terminal;
- a mode switching terminal;

a semiconductor amplification element including a first gate and a second gate between a drain and a source, said first gate being closer to said drain for receiving the signal from said control terminal, and said second gate being closer to said source for receiving the signal from said input terminal;

a circuit for ~~feeding~~ feeding said output terminal with a signal according to the signal outputted from the drain of said semiconductor amplification element;

a bias circuit connected with said control terminal for feeding the first gate and the second gate of said semiconductor amplification element with a bias according to a control voltage fed to said control terminal; and

a mode switching circuit activated in response to the signal from said mode switching terminal to feed an output signal to the second gate of said semiconductor amplification element.

30. (Original) A wireless communication system according to Claim 29,

wherein said high frequency power amplifier module acts as an amplification module for the GSM, when the output signal of said mode switching circuit exhibits a first state, and an amplification module for the EDGE when the output signal of said mode switching circuit exhibits a second state.

31. (Original) A high frequency power amplifier module comprising:

an input terminal adapted to be fed with a signal to be amplified;

an output terminal;

a control terminal;

a mode switching terminal;

a semiconductor element including: a source; a drain for outputting a signal to be transmitted to said output terminal; a first gate being disposed closer to said drain; and a second gate disposed closer to said source and adapted to be fed with the signal from said input terminal; and

a control circuit for receiving a signal from said control terminal and a signal from said mode switching terminal to feed a bias voltage to said first gate and said second gate.

32. (Original) A high frequency power amplifier module according to Claim 31,

wherein in response to the signal from said mode switching terminal, said control circuit generates the bias voltage so that said semiconductor element may act in a linear region or in a non-linear action region.

33. (Original) A high frequency power amplifier module according to Claim 32,

wherein said semiconductor element is a dual gate FET.

34. (Original) A wireless communication system comprising: an antenna; and a high frequency power amplifier module for feeding its output to said antenna,

wherein said high frequency power amplifier module includes:

an input terminal adapted to be fed with a signal to be amplified;

an output terminal;

a control terminal;

a mode switching terminal;

a semiconductor element including: a source; a drain for outputting a signal to be transmitted to said output terminal; a first gate being disposed closer to said drain; and a second gate disposed closer to said source and adapted to be fed with the signal from said input terminal; and

a control circuit for receiving a signal from said control terminal and a signal from said mode switching terminal to feed a bias voltage to said first gate and said second gate.

35. (Original) A wireless communication system according to Claim 34,

wherein in response to the signal from said mode switching terminal, said control circuit generates the bias voltage so that said semiconductor element may act in a linear action region or in a non-linear action region.

36. (Original) A wireless communication system according to Claim 35,

wherein said semiconductor element is a dual gate FET.